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(54) **SYSTEM AND METHOD OF MONITORING, CONTROL AND CONFIGURATION OF SECURITY AND LIFESTYLE DEVICES**

(71) Applicant: **HONEYWELL INTERNATIONAL INC.**, Morristown, NJ (US)

(72) Inventors: **Thomas Paul Schmit**, Huntington, NY (US); **James W. Kern**, East Islip, NY (US); **Philip J. Ferro**, Setauket, NY (US); **William R. Blum**, Huntington Station, NY (US)

(73) Assignee: **HONEYWELL INTERNATIONAL INC.**, Morristown, NJ (US)

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**G06F 15/16** (2006.01)  
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**H04L 29/08** (2006.01)

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CPC ..... **H04L 65/403** (2013.01); **H04L 67/12** (2013.01)

(58) **Field of Classification Search**

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USPC ..... 709/204

See application file for complete search history.

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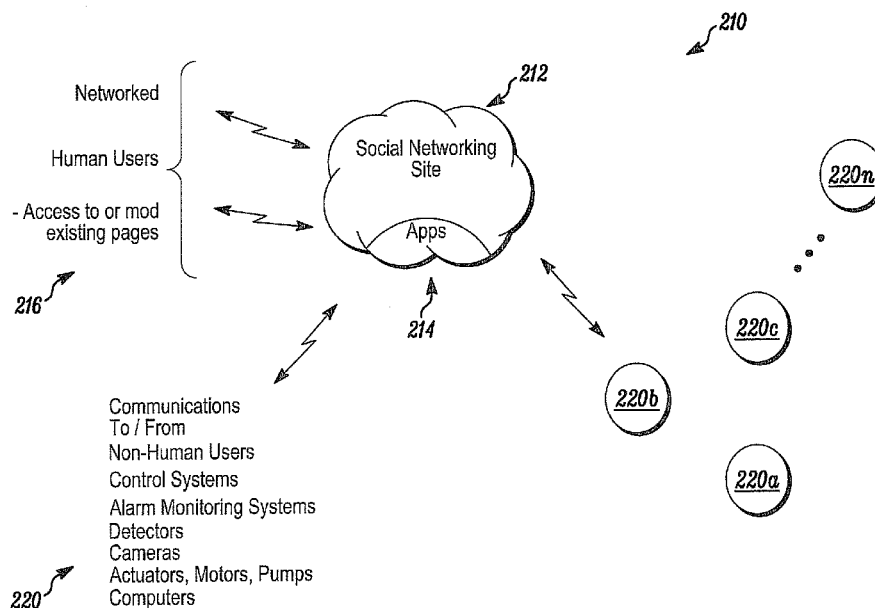
*Primary Examiner* — Hamza Algibhah

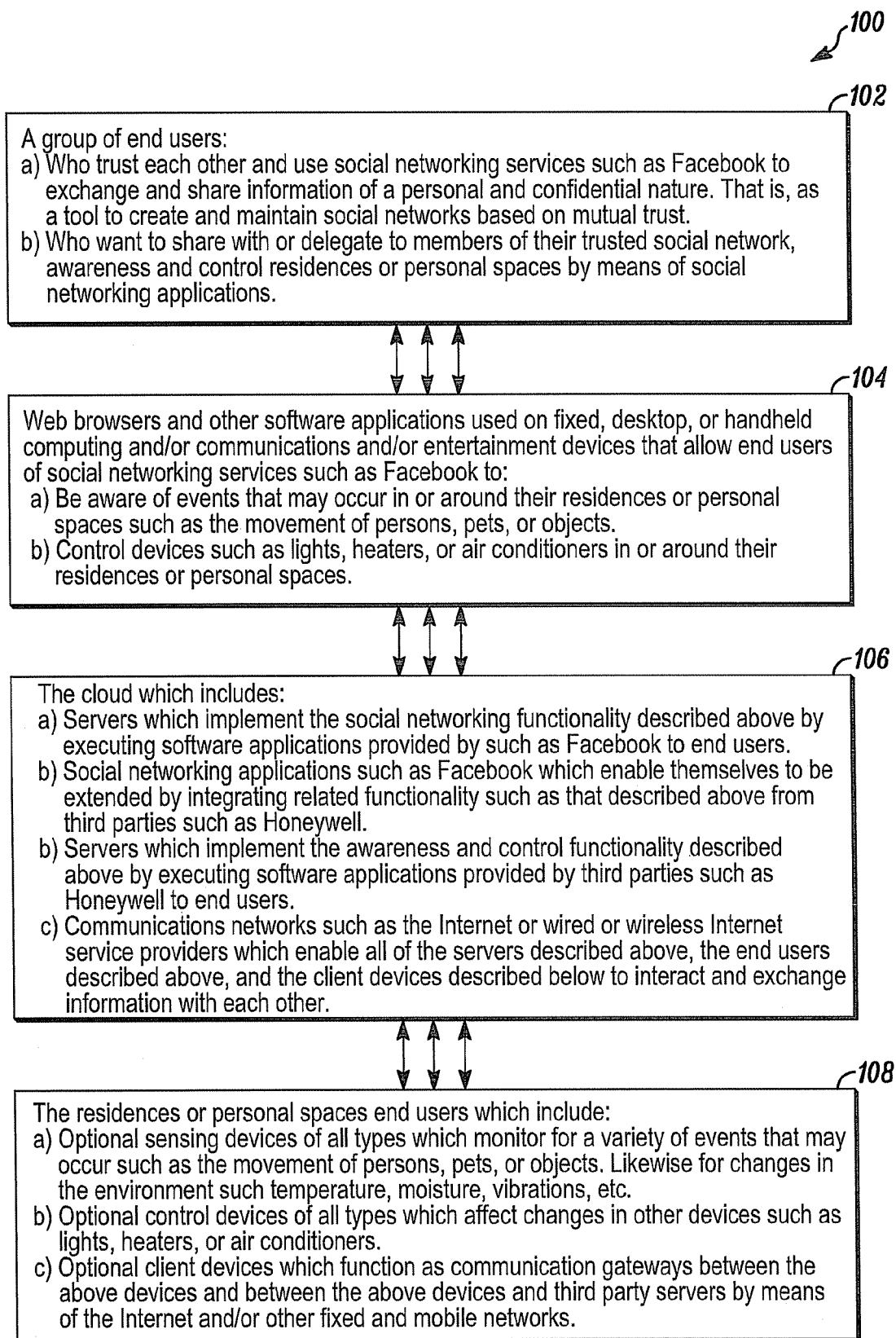
(74) *Attorney, Agent, or Firm* — Husch Blackwell LLP

(57) **ABSTRACT**

A social networking site that communicates with a plurality of human users can also communicate with a plurality of non-human users. Information from one of the non-human users can be automatically received at the site and evaluated. Commands can be automatically transmitted to another of the non-human users in response to the evaluation. A human readable indicator can be posted at a page of the site.

**9 Claims, 2 Drawing Sheets**



*FIG. 1*

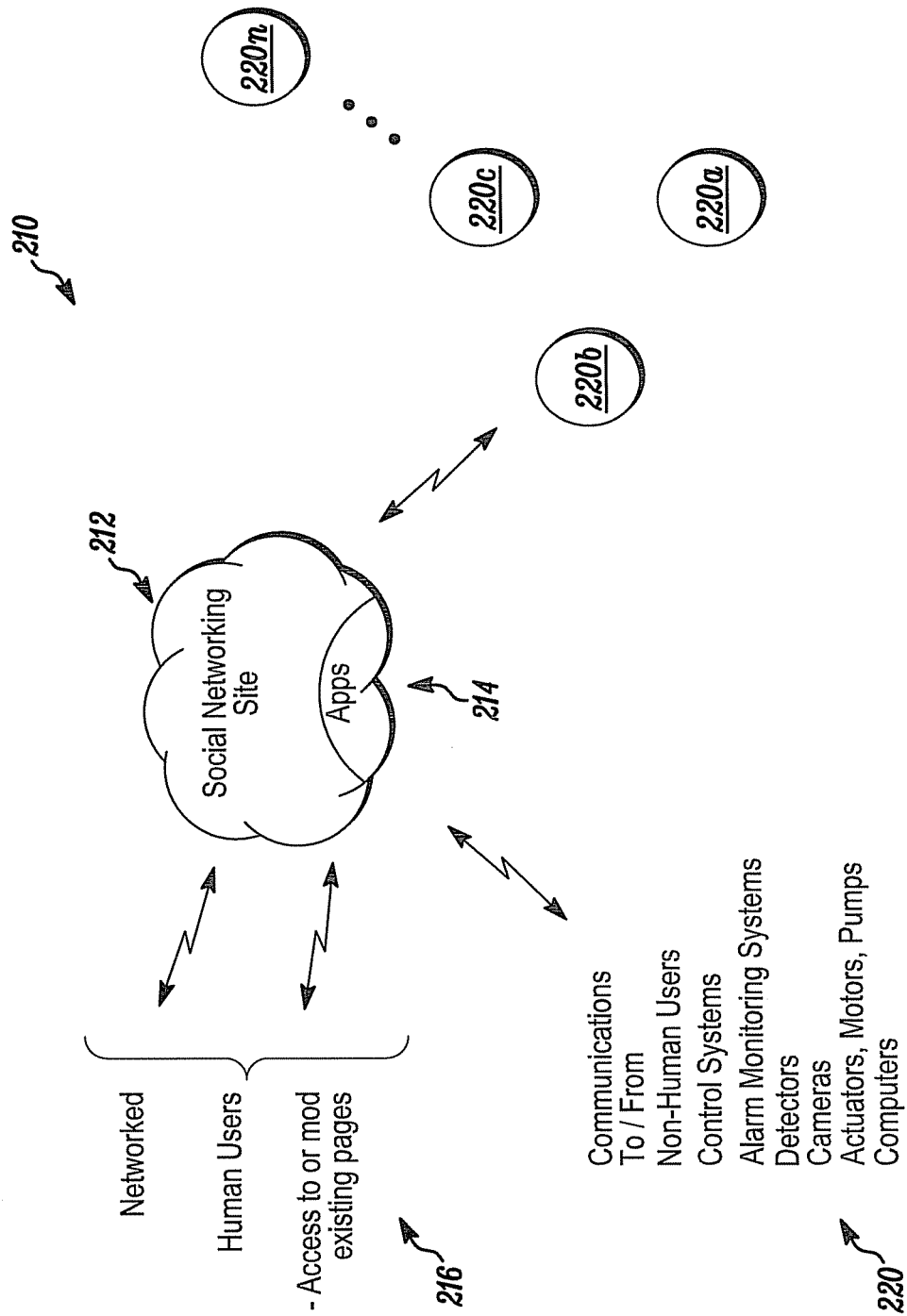


FIG. 2

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# SYSTEM AND METHOD OF MONITORING, CONTROL AND CONFIGURATION OF SECURITY AND LIFESTYLE DEVICES

## CROSS-REFERENCE TO RELATED APPLICATION

This application claims the benefit of the filing date of U.S. Provisional Application Ser. No. 61/569,858 filed Dec. 13, 2011, entitled, "System and Method of Monitoring, Control and Configuration of Security and Lifestyle Devices". The '858 application is hereby incorporated herein by reference.

## FIELD

The application pertains to Internet enabled systems and methods of monitoring and controlling security and lifestyle devices. More particularly, the application pertains to such systems and methods which incorporate functionality of social networking services to automatically implement control of and communications with displaced monitoring systems and associated devices.

## BACKGROUND

Emerging Internet based social networking services and related tools, such as Twitter (www.twitter.com) and Facebook (www.facebook.com), allow anyone to combine data and/or information from many sources to be displayed in a centralized portal and in a personalized way. Internet users are looking more and more to use these services to aggregate and display/edit information about conditions and physical devices that are important to them. It follows then that it would be useful to have access to security and lifestyle related information, via these portals.

## BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 illustrates a block diagram in accordance herewith; and

FIG. 2 illustrates additional aspects of the diagram of FIG. 1.

## DETAILED DESCRIPTION

While disclosed embodiments can take many different forms, specific embodiments thereof are shown in the drawings and will be described herein in detail with the understanding that the present disclosure is to be considered as an exemplification of the principles thereof as well as the best mode of practicing same, and is not intended to limit the application or claims to the specific embodiment illustrated.

Embodiments hereof provide systems and physical devices, both at the user's location (clients) and within the cloud (servers) that facilitate the integration of the monitoring, control, and configuration of clients and servers with the networking services and tools cited above by both the individual users and providers of these services and tools. The provided information would include, but not be limited to status/commands exchanged with clients such as configuration data, event descriptions, email, text messaging via chat and SMS, audio recording clips, photos and/or video clips.

Social networking services provide proprietary APIs (application programmer interfaces) and other tools to facilitate integration with their services. For example, Facebook provides documentation related to the above at developer.facebook.com. Disclosed embodiments include the client devices

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at the users' location including any of hardware, software, communications/networking protocols, user facing aspects, etc. that use and communicate with the proprietary services and tools cited above. In yet another aspect, embodiments include cloud based services that may be used to facilitate usage and communication between the above client and the proprietary services and tools cited above also including any of hardware, software, communications/networking protocols, user facing aspects, all without limitation.

With respect to FIG. 1, and block diagram 100, one exemplary embodiment includes END USERS, as at 102:

a) Who TRUST each other and use SOCIAL NETWORKING APPLICATIONS such as Facebook to exchange and share information of a personal and confidential nature. That is, as a tool to create and maintain SOCIAL NETWORKS BASED ON MUTUAL TRUST.

b) As described above, such users want to be AWARE of events that may occur in or around their RESIDENCES or PERSONAL SPACES such as the movement of persons, pets, or objects, as at 104.

c) As described above, who may also want to CONTROL devices such as lights, heaters, or air conditioners in or around their RESIDENCES or PERSONAL SPACES.

d) Who want to SHARE WITH or DELEGATE TO members of their trusted social network, the AWARENESS and CONTROL described above by means of social networking applications.

The SOCIAL NETWORKING APPLICATIONS such as Facebook which may enable themselves to be extended by integrating related functionality such as that described above from third parties.

The CLOUD which includes, as at 106:

a) SERVERS which implement the SOCIAL NETWORKING functionality described above by executing software applications provided by such as Facebook to END USERS.

b) SERVERS which implement the AWARENESS and CONTROL functionality described above by executing software applications provided by third parties to END USERS.

c) COMMUNICATIONS NETWORKS such as the Internet or wired or wireless Internet service providers which enable all of the SERVERS described above, the END USERS described above, and the CLIENT DEVICES described below to interact and exchange information with each other.

The END USERS' RESIDENCES or PERSONAL SPACES which include, as at 108:

a) Optional SENSING DEVICES of all types which monitor for a variety of events that may occur such as the movement of persons, pets, or objects. Likewise for changes in the environment such temperature, moisture, vibrations, etc.

b) Optional CONTROL DEVICES of all types which affect changes in other devices such as lights, heaters, or air conditioners.

c) CLIENT DEVICES which function as a communication gateways between the above devices and between the above devices and the SERVERS in the CLOUD as described above.

The END USER INTERFACE DEVICES which enable the end user to interact with the system described above which include:

a) WEB BROWSERS such as Firefox or Internet Explorer.

b) Software applications specific to fixed, desktop, or handheld computing and/or communications and/or entertainment devices which are connected to the CLOUD.

In yet another aspect, the awareness and control functionality which would be provided by a third party should be perceived by the end users as another user of the social networking application (provided by a service such as Facebook).

For example, although Facebook provides significant page area within the application part of their site for use by third party applications, it can be expected that most of the interaction between the end users and third party applications will take the form of text messages exchanged between such applications and the end users. On Facebook these types of exchanges occur mostly within the 'News Feed' and 'Messages' parts of the Facebook site. In yet another embodiment, third party applications can incorporate software technology to interpret and respond to end users using phrases that are as near as possible to natural human text exchanges in this type of context.

In another aspect, third party functionality posts within the 'Photos' part of the Facebook site visual/audio content would relate to the awareness and control functionality.

FIG. 2 illustrates a combination 210 in accordance herewith. FIG. 2 illustrates a social networking site 212 which could be implemented as is the case with Twitter.com or Facebook.com. A plurality of different apps 214 can provide specific additional functionality as would be understood by those of skill in the art to registered human users 216 of the site 212. Such services can include, accessing or modifying existing pages all without limitation.

Unlike the human-to-human types of communications supported by networking sites, such as site 212, combination 210 provides access and enables communications at site 212 with a plurality of different non-human communicators, such as systems, devices, or machines, generally indicated at 220.

Non-human information providing communicators of a type that might access and communicate with site 212 include, without limitation, control systems, monitoring systems of all types including security systems, temperature and air quality monitoring systems, fire alarm systems, gas monitoring systems, and the like all without limitation, indicated generally at 220a, b, . . . n.

It will be understood that the non-human communicators can present information at the "Messages" and "News Feed" portions of a respective page of the networking site 212 for the benefit of human monitors. In addition however, using pre-stored apps, such as at 214, as well as at respective devices or systems, such non-human communicators can evaluate information provided by one of them, for example a control system, such as 220a, and determine that one or more operational settings needs to be changed. Responsive thereto, in addition to potentially providing a human readable message or alarm, at the respective page, one or more commands can be transmitted to a respective detector, sensor, or camera for more information. Further, instructions can be automatically transmitted to one or more actuators, motors, pumps or displaced control computers such as 220i. Those output devices, such as 220i can in turn respond to the site 212 and the associate page with confirmatory information as to their response to the instructions.

In another exemplary embodiment, the elements 220i could correspond to person carried IP enabled GPS positioning systems. In this embodiment the elements 220i could be provided to volunteers canvassing prospective voters, making requests for charitable donations or the like. The respective page at the networking site 212 can not only provide, or display, information to a person working with the volunteers, but, information can be automatically forwarded to the

respective elements 220i providing directions to the volunteers as to regions to move into for further activities.

In yet another configuration, the elements 220i can be carried by each member of a plurality of mobile devices, such as boats, motorcycles, cars or the like which might be participating in some activity, such as a tour or race. The elements 220i can forward status information as to the location, or condition of the participating mobile devices to a pre-established page of the networking site 212 for presentation to a monitor of the activity. A local app at the site 212 can process that information and automatically forward updated routing information to the plurality of mobile devices. This configuration could also automatically provide updated weather information and be used with wilderness hiking, or mountain climbing.

Businesses could use configurations, such as 210, to automatically and on an on-going basis, keep track of fleets of vehicles. Local traffic conditions or location information can automatically be provided to a dispatcher monitoring a page of the networking site 212. Business requests, for example a request for taxi service or a delivery, could be formatted and automatically forwarded to one or more of the vehicles.

In summary, the use of networking sites, such as site 212, can cost effectively provide a platform which can be used to interact automatically with a wide variety of remote devices or elements. For purposes of this application, references to non-human communicators refer to devices, systems, detectors, actuators, computers or the like, without limitation, which do not need human intervention to initiate, or respond to communications with/from a social networking site, or service. An individual or organization enrolled at a social networking site, such as site 212, can benefit from such intermittent connectivity without having to invest resources in the creating or maintaining of their own, personal, platform.

As those of skill will understand, information presented at site 212 originating from the displaced elements or devices 220i, as a result for example of one or more third party apps executing at site 212, could be presented and perceived by respective end users viewing the respective Facebook page as being from, or associated with, another user of the respective social networking application.

From the foregoing, it will be observed that numerous variations and modifications may be effected without departing from the spirit and scope hereof. It is to be understood that no limitation with respect to the specific apparatus illustrated herein is intended or should be inferred. It is, of course, intended to cover by the appended claims all such modifications as fall within the scope of the claims. Further, logic flows depicted in the figures do not require the particular order shown, or sequential order, to achieve desirable results. Other steps may be provided, or steps may be eliminated, from the described flows, and other components may be added to, or removed from the described embodiments.

The invention claimed is:

1. A combination comprising:

a plurality of non-human communicators; and

a social networking site which can respond to inquiries and information from a plurality of human communicators and transmit information to at least one member of the plurality of non-human communicators and wherein communications from nonhuman communicators can be presented to human communicators as text messages in the respective context and which includes circuitry and executable instructions to receive and evaluate information from one of the non-human communicators through the site, and transmit commands in response thereto to a different one of the nonhuman communica-

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tors through the site wherein the non-human communicators are each perceived by the human communicators as another user of the social networking site and wherein the text messages and commands are exchanged with the non-human communicators within portions of a respective page of the social networking site.

2. A combination as in claim 1 wherein the plurality of non-human communicators can include at least, control systems, monitoring systems, detectors, sensors, cameras, computers, actuators, motors and pumps.

3. A combination as in claim 1 where the members of the plurality of non-human communicators are substantially identical.

4. A combination as in claim 1 where the site includes and executes at least one respective third party app associated with non-human communicators, wherein responsive to functionality of that app, respective non-human communicators are perceived by site users as another user of the site.

5. A combination as in claim 1 wherein such messages can be presented within predetermined message related regions of a user's display.

6. A method comprising:

providing a social networking service; and

providing a plurality of non-human communication devices wherein responsive to at least one predetermined condition, at least one of the devices automatically communicates with a predetermined page of the networking service, and instructions are automatically forwarded, by the service, to at least one member of the plurality and which includes providing an app for communicating with non-human communications devices, and wherein, communications from such non-human devices are presented to a human user at the site in a form similar to communications from another human user whereby communications between non-human commu-

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nication devices are through the site wherein the non-human communication devices are each perceived by the human user as another user of the social networking site and wherein the presented communications and automatically forwarded instructions are exchanged with the non-human communication devices within portions of the predetermined page of the networking service.

7. A method as in claim 6 where reply communications from non-human communications devices include phrases corresponding to human text exchanges in the respective context.

8. A combination as in claim 1 wherein a non-human communicator can evaluate information provided by a different non-human communicator, and in addition to providing a human readable message or alarm, at the respective page of the site, can transmit one or more commands via the site to a different, input, non-human communicator for more information, and responsive thereto further instructions can be automatically transmitted, via the site, to an output non-human communicator, wherein the output non-human communicator responds to the site with confirmatory information as to its response to the instructions.

9. A method as in claim 6 which includes evaluating information provided by a different non-human communicator, providing a human readable message or alarm, at the respective page of the site, transmitting one or more commands via the site to a different, input, non-human communicator for more information, and responsive thereto transmitting further instructions automatically, via the site, to an output non-human communicator, wherein the output non-human communicator communicates to the site with confirmatory information as to its response to the instructions.

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